

PRODUCT NAME: HDPE B5429
Supplier: SABIC®
Product Identification & Description

B5429 grade is medium molecular weight High Density Polyethylene copolymer. They are primarily intended for blow molding articles of small sizes. B5429 series grades offer excellent combination of toughness, stress cracking resistance, load bearing strength with easy processability. The grade available with antistatic additive is B5429A.

Typical Applications

B5429 is classified as a multipurpose blow molding grade. It may be blow molded into containers for household and industrial chemicals (eg. Detergents, bleach, fabric softeners, solvents, paints etc), automotive supplies, foodstuffs, toiletries and cosmetics . They can also be used in other hollow thin walled parts and profile extrusions.

Physical Properties

Property	Typical Values	Units	Test Methods
Density/Specific Gravity	954	kg/m ³	ASTM D1505
Melt Flow Rate (MFR) at 190°C and 2.16 kg	0.3	g/10 min	ASTM D1238
Melt Flow Rate (MFR) at 190°C and 21.6 kg	29	g/10 min	ASTM D1238

Mechanical Properties

Property	Typical Values	Units	Test Methods
1% Secant Modulus	1050	Mpa	ASTM D638
Tensile Strength at Yield	28	Mpa	ASTM D638
Tensile Strength at Break	19	Mpa	ASTM D638
Tensile Elongation at Break	>500	%	ASTM D638
Flexural Strength	25	Mpa	ASTM D790
Flexural Modulus	1000	Mpa	ISO 178/1A
Izod Impact Strength	180	J/m	ASTM D256
Hardness (Shore D)	65	-	ASTM D2240
ESCR (100% Igepal), F50	100	Hrs	ASTM D1693B
ESCR (10% Igepal), F50	60	Hrs	ASTM D1693B

Thermal Properties

Property	Typical Values	Units	Test Methods
Vicat softening temperature	124	°C	ASTM D1525
Brittleness Temperature	<-75	°C	ASTM D746

Processing Conditions

Typical processing conditions for B5429 are:

Barrel temperature: 170 - 200°C

Melt temperature: 190 - 220°C

Storage and Handling

Polyethylene resin should be stored in a manner to prevent direct exposure to sunlight and/or heat. The storage area should also be dry and preferably do not exceed 50°C. SABIC would not give warranty to bad storage conditions which may lead to quality deterioration such as color change, bad smell and inadequate product performance. It is advisable to process polyethylene resin within 6 months after delivery.

DISCLAIMER

The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties. It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customers particular purposes. The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us. Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

Revision: This datasheet replaces all previous versions. **Revision Date:** Mar 2026